2019

Generation Z's Positive and Negative Attributes and the Impact on Empathy After a Community-Based Learning Experience

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GENERATION Z'S POSITIVE AND NEGATIVE ATTRIBUTES AND THE IMPACT ON EMPATHY AFTER A COMMUNITY-BASED LEARNING EXPERIENCE

by

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A thesis submitted to the Department of Psychology in

partial fulfillment to the requirements for the degree of

Master of Science in Psychological Science

UNIVERSITY OF NORTH FLORIDA

COLLEGE OF ARTS AND SCIENCES

August, 2019

DEDICATION

This thesis is dedicated to my family and friends for all of the support throughout this journey. I would like to extend a special thank you to my mother Teresa Moscrip, my father Michael Moscrip, and my brothers Tyler and Matthew Moscrip for all of the unconditional love and encouragement. I would like to thank my friends Evan Wagoner, Michelle Boss, and Anna Lall for always supporting me. I would also like to thank my thesis advisor, Dr. Jody Nicholson, and my fellowship mentor, Dr. Matthew Ohlson, for all the opportunities and assistance during this master's program.

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Abstract

Generation Z, also known as the iGeneration, iGenners, GenZ, and Generation Now, consists of those born in the mid-1990s through the late 2010s. Historical events important for this generation have influenced their perception of safety as well as how they interact with others. As compared to previous generations, technological advances (i.e., Smartphones, social media) changed how GenZ communicates, socializes, and receives information. Unique experiences and attributes influenced Generation Z's empathy because living through these events and seeing their impact changes how they can understand and take the perspective of others. The relation between three factors was examined across University students who are members of Generation Z; intensity of the CBL activity (high versus low), sex, and empathy (empathy assessment index, basic empathy scale, ethnocultural empathy scale). It is hypothesized that freshmen students would exhibit higher gains in empathy due to their developmental period. As hypothesized, there was a consistent main effect for sex in multiple subscales across the Honors Colloquium and Interdisciplinary late-teen sample indicating that females were higher in initial pretest scores and remained higher on post-scores on empathy as compared to males. These findings hold implication for instructors aiming to provide effective CBL experience for their students. Faculty may consider how students may be differentially receptive to CBL experiences on multiple demographic and personality variables, and while this study only examined sex and intensity of experience, it provides a good representation of the diversity of outcomes that can be evidenced.

Keywords: Generation Z, empathy, community-based learning

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Cohorts, or individuals born in the same year, experience historical events (i.e. wars and economic crises) or sociocultural evolutions (i.e. differences in parenting or changes in the education system) during roughly the same developmental period in their lives (Baltes, 1987). Typically, individuals in a particular birth cohort experience such events together influencing their development and unique characteristics (Lerner, Lewin-Bizan, & Warren, 2011). Because these cohort effects have developmental implications across education, health, and work, generational differences are important to consider (Baltes, 1987). Currently, the majority of society consists of individuals categorized as Baby Boomers, Generation X, Millennials, and Generation Z. These generations all experienced different events that impacted who they are and how they react in different situations.

Baby boomers (born between 1946-1964) grew up experiencing the civil rights movement, Watergate, and the space race (Colvin & Tobler, 2013). Generation X (born between 1965-1980) experienced other events including the Persian Gulf War, the nuclear threat, the AIDS epidemic, and escalating crime (Hogan, Andrews, Andrews, & Williams, 2017). Events that the Millennials (born between 1981-1994) experienced and have been directly impacted by include the Great Recession of 2007-2009 and the first major school shooting at Columbine High School. Some events that the current college-aged generation (Generation Z: born between 1995-2012) have experienced include the rise of smartphones and technology, increased frequency of school shootings, same sex marriage becoming legalized in the U.S., and the first African American president of the U.S. Major world and life events that cohorts experience can impact how they process experiences, how these experiences impact their perspective of others, and how they relate to others (i.e., empathy, understanding another's feelings; Carrè, 2013). For example,

the events that influenced the current generation in college, Generation Z, have caused this cohort to have a different perception of perceived safety, to be more open to differences, and to connect more virtually (Twenge, 2017). However, interindividual differences within members of a cohort exist, due to the unique characteristics and experiences of the individuals (Baltes, 1987). Thus, while there are similarities between individuals of the same cohort, there are still interindividual differences influenced by the unique experiences that each member encounters. Therefore, a person-by-situation approach is needed to determine if an individual's behavior is due to personality or situational factors. The current study will examine how Generation Z members' change in empathy after a community-based experience during a freshmen honors' course while assessing sex and the intensity of the experience (i.e., situational influence). Hypotheses have been formulated based on an understanding of characteristics typical of Generation Z individuals while acknowledging individual differences that could differentiate college-aged students from this cohort.

Formative Experiences of Generation Z

Generation Z, also known as the iGeneration, iGenners, GenZ, and Generation Now, consists of those born in the mid-1990s through the late 2010s (Looper, 2011; Twenge, 2017). Historical events important for this generation have influenced their perception of safety as well as how they interact with others. The majority of individuals in this generation were young, or not even born, when the attacks of September 11th occurred; this generation has lived with the ramifications of this event, such as the perceived norm for public safety and societal trust. In a similar manner, this generation is unique on their perception of personal safety and risk because it is the first generation to experience school shootings on a wide-scale (i.e., since GenZ started school in 1999 there has been 288 school shootings). In addition, as compared to previous

generations, technological advances (i.e., Smartphones, social media) changed how GenZ communicates, socializes, and receives information. Generation Z has lived through multiple societal shifts resulting in greater acceptance of minority groups; Barack Obama, the first African American president, is inaugurated in 2009 and then in 2015 same-sex marriage became legal in all 50 states, resulting in Generation Z being more open minded and accepting of differences (Seemiller & Grace, 2016). These unique experiences influenced Generation Z's empathy because living through these events and seeing their impact changes how they can understand and take the perspective of others.

Financial Security

Generation Z is affected by the growing income gap and the shrinking middle class. They were able to either witness this directly from their families with the Great Recession of 2007-2009 or indirectly from witnessing the impact of the recession on others (i.e., through acquaintances or the media). This caused stress in the home for some and showed the importance of saving and being fiscally responsible for Generation Z (Turner, 2015). However, these events also positively impacted Generation Z, causing them to want to help others in difficulty and make a contribution to society (Twenge, 2017). From the Great Recession in 2009, people thought iGenners would grow up with more concern for others and be more involved in their communities. Furthermore, with the increase in technology it is easier to do just that because of the power of online communities used to publicize and donate to charities (Twenge, 2017). Therefore, iGenners may be more likely to be higher in empathy through this increased need to help others due to their experiences with the Great Recession and shrinking middle class.

Perception of mortality

Like all generations, examining the historical time in which a generation grew up explains pervasive characteristics typical to its members. Generation Z lived through the terrorist attacks of September 11, 2001 when the oldest of this cohort were about 5 years old; these attacks then led to the war in Afghanistan, which is still going on today. While they may not remember these critical events, Generation Z has witnessed parents, family members, friends, and acquaintances who have been actively involved in the war. Another cohort-specific experience that has normalized violence is school shootings. The first mass school shooting began with the Columbine shooting in the late 1990's; 288 school shootings have occurred since GenZ started school in 2009. This generation knows a world of war and shootings, which directly and indirectly impact them, and this can have advantages and disadvantages. Generation Z can either think of the world as unsafe or have greater global awareness about what their world is like (Twenge, 2017).

There is evidence that one consequence of this generation's experiences with violence to their perception of mortality is that Generation Z is less likely to take physical risk. Not taking physical risk can be problematic because instead of confronting fears, it appears that GenZ members avoid them and do not build necessary coping strategies (Twenge, 2017). A survey, Monitoring the Future, examined 8th and 10th graders and asked them questions regarding their likelihood to take risks or engage in dangerous acts. In 2015, less than 40% of teens "like to take risks sometimes" compared to the 2000s where over 50% of teens agreed with the statement (Twenge, 2017). Furthermore, with GenZ's decline of risk taking and increase of perception of mortality there appears to be an increase in empathy because they are more understanding of what is happening to the world around them.

Emotional security

Emotional discomfort has been likened to the equivalent of physical injury in this generation, which may be because online communities and social networking can exacerbate the emotional damage of negative social interactions (Twenge, 2017). This generation is the safest compared to previous generations, through the increased interest in safety, death rates from car accidents have decreased; however, they are more likely to die through suicide due to their emotional fragility (Twenge, 2017). GenZ appears to be more scared of adult social interactions than physical injury, which could be the reasoning for an increase in depression and anxiety (Twenge, 2017). This increased interest in emotional safety can cause an increase in empathy because iGen recognizes that social interactions carry a risk of being in emotional discomfort and they try to avoid this.

Safe spaces. There are now more safe spaces on college campuses due to the emotional safety needs of GenZ students. Safe spaces are used on college campuses to encourage the sharing of honest ideas and for students to express their feelings in a safe environment (Holley & Steiner, 2015). LGBT and minorities students typically use Safe Spaces because they know they will be accepted and not judged (Twenge, 2017). Safe Spaces could increase empathic awareness because people are able to express themselves without fear of being judged. They can be exposed to different kinds of ideas and people going through different situations in a non-judgmental safe space. Increased empathy can be seen from learning from another's perspective. Adolescence is a critical time for empathy development because cognitive changes impact adolescents' ability to take others' perspectives and their concern for others (Van der Graaff, Branje, De Wied, Hawk, Van Lier, 2014). Therefore, having an opportunity to share different ideas and hear others' experiences and perspectives is particularly suited for freshmen in college as they are already gaining greater empathic awareness due to typical maturation (Van der Graaff et al., 2014).

Technological Advances

iGeneration, also known as Generation Z, acquired their name because they do not know a time without the internet (Twenge, 2017). This generation grew up with the use of cell phones, social media, and Wi-Fi. Statistics show, two-thirds of United States teens own an iPhone and that teens check their phones approximately 80 times per day (Twenge, 2017). Growing up with these technological advances can have strengths and weaknesses.

Access to technology could create an advantage; Generation Z has been able to get news quickly and communicate efficiently with people around the world (Seemiller & Grace, 2016). Technology is readily accessible to Generation Z despite their financial status or income bracket; 60% of Generation Z who lived in a $30,000 household income or less still had a phone (Turner, 2015). However, this can also come with a disadvantage for Generation Z if the technology is used as a replacement for social interaction versus an enhancement (Twenge, 2017). Some people use video games, social media, and smartphones to avoid their struggles in the real world and the pervasive use of technology has caused a decline in face-to-face communication (Turner, 2015). Generation Z is known to have a bond to digital media, causing them to become emotionally attached to the internet (Turner, 2015). According to a survey on 13- year-olds to 17-year-olds, 90% of the teen participants indicated they would be upset about having to give up the Internet as a punishment. They also reported that they would feel more upset giving up their cell phones than they would be losing their allowance (Turner, 2015). Furthermore, there is access to unlimited information on the internet and through 24-hour news media, which can have advantages and disadvantages. Having access to news and seeing real world problems can be an advantage, but the unlimited and pervasive nature of information can cause problems to appear more severe and present than the more abridged news media that previous generations were used

to. Another example is that the internet gives access to unlimited amounts of information, which can be useful, but some websites teach people about self-harm and, without parental control or monitoring, information available on the internet can be detrimental to youth (Turner, 2015).

Social Media. One aspect of technology that is widely used by Generation Z is social media. Regardless of ethnicity or SES, this form of technology is pervasive throughout this generation. In 2008, white and higher SES teens were more likely to use social media sites every day, but 2015 statistics display that it is available for most teens and the SES gap has diminished (Twenge, 2017). Facebook is a social media platform that became open to those over the age of 13 in 2006. Therefore, in 2006 iGenners were between 1-10 years of age and while Facebook did not become accessible to iGen until 2009, they were the first generation to use it pervasively in adolescence. Other social media sites like Snapchat, Instagram, and Twitter, have also gained in popularity and influence over iGen, resulting in them using social media earlier and using multiple outlets as compared to previous generations (Twenge, 2017). Generation Z uses different social media platforms for different reasons, for example GenZ likes to use Twitter because this is a social media platform that most parents do not have and it brings GenZ some freedom to be candid (Seemiler & Grace, 2017).

Social media has an impact on teen's self-confidence and social status, and can help define social groups (Twenge, 2017). Social media has highlighted FOMO, "fear of missing out," as teens view their friends spending time together through social media, when they themselves are not included in the same experiences. Seeing their friends on social media socializing without them could lead to unhappiness and could be the mediator to why the use of social media in general leads to unhappiness (Twenge, 2017). A study by neuroscientists found that when people are left out of a game by other online players, the brain region involved with

physical pain activates (Eisenberger, Lieberman, & Williams, 2003). iGen'ers may experience this kind of social rejection more frequently than previous generations because they have direct access to what their peers are doing. Monitoring the Future found that teens who are on social media everyday are 11% more likely to agree with the statement: "I often feel left out of things", "I often feel lonely", and "I often wish I had more good friends" (Twenge, 2017). Specifically, Facebook has many emotional consequences such as feelings of loneliness and feelings of envy which can be detrimental to one's life satisfaction (Freeman et al., 2014).

Another way that social media can create a misperception of reality is through highlighting positive moments in life, while excluding the difficult moments, and focusing more on the self by creating a positive, and impossible, social image (Twenge, 2017). This creates an unrealistic expectation of reality causing teens to think their lives are not as exciting as others and causing teens to think that they are failures (Twenge, 2017). A study showed that those that use Facebook have increased feelings of envy because when using Facebook you are watching other people's vacation photos, wedding announcements, and other positive life changes (Freeman et al., 2014). People tend to base their self-esteem on social comparisons, and try to emulate the people they see on social media (Yang, Holden, & Carter, 2017). Social media causes people to feel inadequate because they do not realize their friends fail at things, too. A study on college students found that those who use Facebook more often were more depressed, but only if doing so made them envious of others (Twenge, 2017). This contributes to the idea that social media platforms, like Facebook, increase social comparison, which can lead to depression. Social media may be a replacement to in-person contact. It appears that iGen'ers are replacing in-person contact with friends with engaging over their smartphones instead (Twenge,

2017). Those that spend more time on their digital screens are more likely to be unhappy compared to those that have in-person contact (Twenge, 2017).

Social media algorithms reinforce ideas to the user and causes them to believe that their friends share these ideas too. The more you interact with a person or page, the more that you see their posts (Bromwich & Haag, 2018). Recently, Facebook has been scrutinized for this practice, though it is common to all social media sites. Facebook selects specific information for the user's newsfeed, displaying content that you are more likely to interact with first (Bromwich & Haag, 2018). This can influence the generation's emotional intelligence through the reinforcement of ideas that Facebook chooses. Many people receive their news from social media, research conducted by the Pew Research Center found that two-thirds of American adults were getting at least some of their news from social media in 2017 (Shearer & Gottfried, 2017). Therefore, social media reinforces the idea that most people think like you do instead of providing a balance of perspectives, which could be damaging for empathy because it is more difficult to take others' perspectives when you assume all of your Facebook friends have the same ideas as your own.

Emotional contagion, the tendency to mimic another and to converge emotionally without awareness (Hatfield, Cacioppo, & Rapson, 1993; Kramer, Guillory, & Hancock, 2014), is something that GenZ appears to be high in. Through the use of social media, people tend to base their self-esteem off of social comparisons, and try to act like the people they see on social media even if they are unaware (Yang et al., 2017). Emotional contagion can also work in a group setting, this is when the moods of one group transfers to the moods of another group. Being high in emotional contagion has many benefits in the workforce because it improves cooperation, decreases conflict in the workplace, and increases perceived task achievement (Yang et al., 2017). However, emotional contagion also proves to be negative since it transfers negative

emotions as well as positive ones (Kramer et al., 2014). A study examined how people using Facebook would react when there was increased or decreased positive emotional posts on their newsfeed. The results showed that Facebook influenced positive and negative emotions, while in-person interaction cues were not necessary to experience emotional contagion (Kramer et al., 2014).

Research shows that virtual empathy has been correlated positively with live face-to-face empathy and people can show empathetic responses to others online (Carrier, Spradlin, Bunce, & Rosen, 2015). Further, a study examined the amount of time spent with technology and empathy levels. Results showed that going online, in general, had little negative influence on real-world and cognitive empathy (Carrier et al., 2015). However, playing video games decreased the level of real-world empathy for both sexes. Additionally, data from this study showed that technology did not decrease the amount of time spent with in-person interactions (Carrier et al., 2015). Further, a study examined an interaction between cognitive empathy and cyberbullying for Generation Z and reported that poor cognitive empathy led to cyberbullying, especially in males. (Ang & Goh, 2010).

Emotional Connection and Technology. Emotional connection, to arouse strong feelings and a bond between people, is a characteristic that Generation Z appears to have (Carré, Stefaniak, D'Ambrosio, Bensalah, & Besche-Richard, 2013; Vincent, 2006). Studies show, 73% of GenZ students reported seeing themselves as compassionate and 80% saw themselves as being thoughtful and mainly concerned about the issues facing other people. (Seemiller & Grace, 2016). Compassion and being thoughtful are things that can develop through emotional connection which can have benefits socially and in the work place. Since video chat is so accessible to Gen Z, people receive a connection mimicking the face-to-face interaction causing

them to feel other's emotions. Research shows that virtual empathy has been correlated positively with live face-to-face empathy and people can show empathetic responses to others online (Carrier et al., 2015). Advanced technology such as this is a reason that cognitive empathy, understanding another's feelings (Carré et al., 2013), appears to be high in Generation Z as well.

Being emotionally connected can be negative, for instance, being emotionally connected to your cell phone. Generation Z can experience negative emotions such as anxiety, strangeness, and panic when absent from one's device or experience feelings of being afraid due to not knowing what everyone else is doing (Vincent, 2006). One can even engage in irrational behaviors when feelings this strong connection to their phone, such as having the urge to text and drive which can be fatal.

Phone Use. Advanced technology is a reason that empathy, mental perspective taking (Freeman et al., 2014), appears to be high in Generation Z as well. Generation Z has access to unlimited information which causes them to see effects of experiences on real people versus other generations that did not receive news as quickly or as often. Furthermore, since video chat is accessible now people receive a connection mimicking the face-to-face interaction causing them to feel other's emotions. Research shows that virtual empathy has been correlated positively with live face-to-face empathy and people can show empathetic responses to others online (Carrier et al., 2015).

Generation Z learns about significant national and international events as they are being reported on, or even as they are still occurring. This is contrasted with prior generations who usually experienced such events by delayed word of mouth, or after-the-fact (Twenge, 2017). One telling example is the mass shooting that took place at Shawnee Park on Thanksgiving Day

in 2016, which was streamed directly on Facebook live (Washburn, 2016). People on Facebook could watch this mass shooting as it was happening, getting news in real-time. However, constantly receiving news or constantly being on social media can have consequences. Research shows that constant use of social media can cause a person to be exposed to an abundance of negative events in other's lives that one wouldn't originally be exposed to causing one to become hardened to emotional experiences which can affect in-person interactions and lessen empathy (Alloway, Runac, Qureshi, & Kemp, 1956).

Parenting

Generation Z was mostly raised by Generation X, who have taken a more involved approach to parenting as compared to previous generations (Seemiller & Grace, 2016). There have been increased rates for home schooling and an increased involved approach to parenting (Seemiller & Grace, 2016). Generation X instills the values of family in their Generation Z children, making family a priority by infiltrating the values of close family relationships by raising their kids to be their friends. Research shows, 88% of those in GenZ felt that their parents are their friends rather than advisors (Seemiller & Grace, 2016). Generation Z looks up to their parents and sees their family as financially and emotionally supportive (citation). These characteristics could have increased because of the use of social media and smartphones; families have more contact with each other and this can have positives and negatives (Seemiller & Grace, 2016). Families can use their phones negatively as a replacement for in-person contact where the family is sitting together in-person but chooses to be on their cell phones. However, GenZ can positively use cell phones to communicate when they cannot be physically present.

Generation X can be described as having high energy, a creative mind, and multi-tasking, which translates to their parenting role is more involved (Rosen, 2007). Generation X also

experienced technology, but unlike Generation Z, they are not "digital natives" and saw the development and advancement of technology across their childhood and early adulthood. Generation X also tends to spend more money and time on their children due to how they were raised. Generation X's parents, the Baby Boomers, had very little money and possessions and the money they did have they used to survive, therefore, GenZ is spoiled with toys and indulged by their parents because GenX wasn't able to experience this type of frivolous spending when they were growing up (Rosen, 2007).

Gen Z teens are more supervised by their parents when compared to previous generations; parents know where their teens are and who they are with (Twenge, 2017). Technology could be the cause of this because parents have more direct and consistent access to their children; parents can be "friends" with their kids on social media and get immediate responses through texting and email. Another cause of this could be the new phone tracking applications on smartphones, making it easier for parents to keep an eye on their kids (Twenge, 2017). Further, GenZ is less likely to go places without their parents and experience freedom, and consequently they are less likely to make their own choices, whether these choices are good or bad (Twenge, 2017). Generation's X approach to parenting GenZ individuals may have contributed to them growing up more slowly, as life history theory argues that how fast or slow teens grow up depends on how they were raised (Twenge, 2017).

Gender Differences in Empathy

Empathy can be seen in early childhood, but it does not truly develop until experiences in adolescence and emerging adulthood (Allemand, Steiger, & Fend, 2015; Dymond, Hughes, & Raabe, 1952). Experiences include school transitions, discovering your social role, and development of sexuality (Eccles et al., 1993). For example, this can be seen in college when

students partake in a community-integrated course. Community-based learning (CBL) integrates community-service into a course with critical reflections (Mooney & Edwards, 2001; Waldstein & Reiher, 2001). Empathy development is seen in students enrolled in community-based courses because CBL causes them to have the ability to comprehend complex issues, better understanding of other's perspectives, and understand different viewpoints such as (Wilson, 2011).

When measuring empathy, gender differences need to be considered (Hoffman, 1977). Research shows that males and females have different strategies for their emotional responses to others (Schulte-RütherMartin, Markowitsch, Shah, Fink, & Piefke, 2008). In a study by Rueckert et. al., females reported higher levels of empathy in response to other's emotional states and females were consistently better at correctly evaluating others emotions (Rueckert & Naybar, 2008; Schulte-RütherMartin et al., 2008). However, there is an influence of cohort effects when observing gender differences that needs to be considered.

Cohort effects Impact on Generation Z's Perspective of Gender. The current generation, GenZ, has experienced life events such as legalizing same-sex marriage, Barack Obama becoming the first African-American president, more awareness of the transgender community, and a time when there is not an ethnic majority (Seemiller & Grace, 2016; Twenge, 2017; Williams, 2015). These life events cause GenZ to not care what race you are, think of the LGBT community as normative, and to think of gender as fluid (Twenge, 2017). When GenZ hears about gender, race, and LGBT inequality they are shocked that such inequality exists because they grew up with a lens that does not see race, gender, or issues with the LGBT population (Twenge, 2017).

There was a movement that was first inspired by transgender individuals declaring that gender cannot be contained into two categories (Twenge, 2017). GenZ has lived through this movement contributing to their diminished idea that you must be either male or female, they think of gender as fluid. There has been a shift in the norm of calling people male or female to referring to others as "them, they, or their" (Twenge, 2017). Further, Gen Z grew up with the knowledge of what being a transgender is from an early age through news, magazine covers, watching television, and social media (Twenge, 2017) . GenZ being exposed to this all their life reduces the stigma around the idea that there is something wrong, instead it is deemed normal.

Bisexuality has also been on the rise for GenZ, as the percentage of Americans that have sexual experiences with the opposite sex has more than tripled from 3% in 1990 to 11% in 2016 (Twenge, 2017). Along with this increase in bisexuality, there is a large increase of those that have sexual encounters with the opposite sex but do not identify themselves as part of the LGBT community (Twenge, 2017). This change around gender of sexual partners can lead one to believe that GenZ does not believe that people should have a label based on their sexual partner, contributing to the idea that gender is fluid and not the same as their biological sex (Twenge, 2017).

Gender Roles. Gender roles have significantly changed since the 1990s, there is a higher number of women in the workplace compared to previous years and a higher number of females in higher education compared to males (Steinberg, 2014). However, there has not been a shift in some attitudes toward gender roles that were previously set by millennials. GenZ still agrees that mothers should stay at home to raise their children, that a child in preschool would suffer if their mother worked, and that it's the father's responsibility is to work and bring home money (Twenge, 2017). However, in 2014 there is a spike in the disagreement that it is best for men to

work and women to stay at home and watch the kids displaying shifting views toward gender equality (Twenge, 2017). Hence although gender roles are changing and slowly diminishing, gender roles are still present.

Gender Differences in Formative Experiences. It is important to examine gender differences in empathy as a result of formative experience in adolescence and emerging adulthood. There are gender differences in the engagement of community-based activities, with females more likely than males to participate in such events (Kinzie, Gonyea, & Kuh, 2007). There is also literature supporting differences in how males and females note their emotional responses to others following a formative experience, with females rating emotions more accurately and reporting higher levels of empathy response than men (Schulte-RütherMartin et al., 2008). Therefore, gender differences are important to consider when measuring empathy to understand how formative experiences may be impacted by gender differences. Further, Generation Z appears to be diminishing gender roles, but they are still present and important to investigate.

How Gen Z benefits from meaningful experiences: Community-Based Learning

CBL is designed to integrate community-service into academic programs through critical reflections (Mooney & Edwards, 2001; Waldstein & Reiher, 2001). CBL is often referred to as service-learning, community service, and community engagement and is a hands-on experience that has been proven to benefit students' academics, life skill development, and provide a better sense of civic responsibility (Astin & Sax, 1998).

Generation Z has risk aversive characteristics that would lead GenZ students to be more prone to changes after a CBL experience because this type of experience would force them to try something they may otherwise not have experienced on their own. In 2015, less than 40% of

teens liked to take risks or got a kick out of doing dangerous things (Twenge, 2017). Being risk aversive has its positives, since students are more cautious and the safest generation. Making safety the priority also has its negatives, however, because iGen focuses on avoiding potentially bad experiences and uncomfortable situations, which can also mean missing out on formative learning experiences (Twenge, 2017). However, CBL can cause students to take risks and get out of their comfort zones in a safe environment, in turn promoting personal and academic growth (Bringle & Hatcher, 1999).

Academic Development

Some assume that volunteering and participating in service activities distracts from time spent studying, however, community-service promotes academic development (Astin, Vogelgesang, Ikeda, & Yee, 2000; Carini, Kuh, & Klein, 2006; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008). More specifically, there is a positive relationship between students who take CBL courses and those students' success which is measured by grades, GPA, persistence, and writing (Astin, Vogelgesang, Ikeda, & Yee, 2000; Carini, Kuh, & Klein, 2006; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008). In a study that utilizes a first-year experience program, integration of coursework with extra-curricular components in the community displayed on average an 0.101 point increase in GPA (Jamelske, 2009). Service-Learning also increases rate of retention for students (Bringle, Hatcher, & Muthiah, 2010; Jamelske, 2009). This was reflected in a study observing the retention rates of college students enrolled in a service-learning course; 60.2% of students in a service-learning course were reenrolled the following semester compared to 24.7% of students not in a service-learning course (Bringle et al., 2010).

Furthermore, participating in service activities promotes higher aspirations for advanced degrees and students have the opportunity to make more connections with faculty members who

can assist them through their college career (Astin & Sax, 1998). In addition, CBL courses can assist students in being more successful by combining knowledge with practice which increases complexity of thought, prosocial decision making, conflict resolution skills, social self-efficacy increased critical thinking skills, communication skills and increased awareness (Astin, Sax, & Avalos, 1999; Carini et al., 2006; Fenzel & Leary, 1997; Sowell, Thompson, Holmes, Jernigan, & Toga, 1999; Sowell, Thompson, Tessner, & Toga, 2001).

Personal Development

CBL is a formative experience that is necessary in this period of the lifespan, when identity development is the period of focus. Identity development is accomplished after establishing a clear sense of self, which occurs after exploring a range of experiences (Kuther, 2017). Research demonstrates that empathy is seen in the early years of one's life, but does not develop in more complex forms until adolescence and emerging adulthood. Empathy development during adolescence and emerging adulthood is crucial as it predicts social competencies in adulthood approximately two-decades later (Allemand et al., 2015; Smits, Doumen, Luyckx, Duriez, & Goossens, 2011).

Participating in a meaningful and diverse experience leads to personal development increases such as; increased personal efficacy, increased sense of personal values, and an increased awareness of the world (Astin, Vogelgesang, Ikeda, & Yee, 2000). Students that were enrolled in courses with a CBL component displayed improvements in political awareness, diversity awareness, and overall community self-efficacy (Simons & Cleary, 2005). Students enrolled in CBL courses also experienced an increase in social self-confidence and increase in leadership abilities when compared to those not involved in CBL (Astin & Sax, 1998).

Service learning promotes obtaining an emotional connection, the understanding of complex issues, and the comprehension of differing viewpoints which is the foundation of the process for the development of empathy (Astin, Vogelgesang, Ikeda, & Yee, 2000; Wilson, 2011). A research study analyzed the development of empathy in college students that participated in service-learning and found that 82% of service-learning students expressed this understanding of others' perspectives in their reflections while only 46% of those in non-service learning courses demonstrated an increase in empathy (Wilson, 2011).

Effectiveness of CBL

CBL provides students with monitored real-life service experiences where students have intentional learning goals and frequent reflections throughout the experience (Furco, 1996). In a study that explored how service learning affects students, the researchers found an increase in self-efficacy after the experience (Astin, Vogelgesang, Ikeda, & Yee, 2000). Service learning is also a positive predictor for perspective-taking and leads to an increase in global perspective, specifically in the interpersonal and identity dimensions (Engberg, 2013).

Service learning provides students with meaningful experiences while also benefiting the student's education and the community (Bringle & Hatcher, 1999). These diverse experiences during the college years can lead to increase in empathy, which is already being developed during this period of the lifespan (i.e., adolescence and emerging adulthood; McDonald & Messinger, 2011). In a study that compared students who participated in service learning projects to those that did non-service learning projects, it was found that in the service learning group there was a significantly higher increase in emotional empathy after the experience compared to those in the non-service learning group (Lundy, 2007). As demonstrated, college students that

utilize service learning experiences are more prone to the advancement and development of empathy.

Current Study

We will examine the relation between three factors across University students who are members of Generation Z; intensity of the CBL activity (high versus low), sex, and empathy (empathy assessment index, basic empathy scale, ethnocultural empathy scale; Carré et al., 2013; Lietz et al., 2011a; Wang et al., 2003). It is hypothesized that freshmen students would exhibit higher gains in empathy due to their developmental period: (a) Male students would demonstrate higher gains in empathy after low intensity CBL experiences (high contact) versus high intensity (low contact) CBL experiences, (b) Males would be lower in empathy regardless of intensity, (c) Males would demonstrate more change in empathy levels for higher intensity when compared to females. If confirmed, this study will contribute to a better understanding of predictors for increased empathy in members of Generation Z.

Methods

To examine changes in empathy for Generation Z Freshmen as a result of a community-engaged assignment, two samples were examined. First, an Honor's Colloquium course was assessed on empathic gains as a result of interacting with a refugee population (Honors Colloquium freshmen). To examine the generalizability to Freshmen beyond an Honors program, an Interdisciplinary Late Teens sample was utilized which was conducted across five colleges and 14 departments examining a wider range of experiences that utilized CBL within a course assignment; participants in this study were included if they reported being 18 or 19 at the pre-survey, which included students from 23 different courses. This sample will be referred to as the

Late Teen sample, as students in this sample likely have brain structures similar to the Freshmen in the Honors Colloquium program based on maturation.

Participants

Honors Colloquium Freshmen. The participants consist of freshman students (n = 786), enrolled in a freshman honors colloquium course at the University of North Florida collected across three years (Fall 2015- Fall 2017). In total, 361 students completed the CBL survey from 2015-2017; Completion rate for both surveys was as follows: 109 out of 171 participants in 2015, 131 out of 152 participants in 2016, and 121 out of 165 participants in 2017. The majority of the participants reported they were 18 years at the beginning of the semester (75.7%). The majority of the participants were female (66.9%), and the majority of the participants were Caucasian (81.5%); 2.3% identified as African-American; 7.0% Hispanic, 5.4% Asian, and 3.7% other.

Interdisciplinary Late-Teens. The participants consist of students enrolled in a course with a community-based learning component. Courses ranged from internship and capstone courses to a 1 credit introductory community engagement experience called UNFCares; students were also included from the honors colloquium course, so the two samples utilized in this study are not mutually exclusive. In total 587, students completed the CBL survey from 2015-2018. The average student age was 18.89 (SD = 1.415); individuals who were not yet 18 years were removed from the sample since they cannot legally provide consent. There were more females *(43%)* and the majority of participants were Caucasian (58.8%); the ethnic breakdown was black/African American 411 (5.8 %), Hispanic/Latino 118 (6.9%), Asian/Pacific Islander 73 (4.3%), and those identifying as other 8 (0.5%).

Procedure

For both samples, students were administered a survey before and after the CBL experience. A pre-survey was generally administered within the first month of the semester and a post-survey was completed in the last three weeks of the semester. All included participants signed informed consent forms and received a debriefing sheet after the conclusion of both surveys. Data was analyzed using IBM's Statistical Package for the Social Sciences ("SPSS for Windows," 2017). Intensity was based on number of hours spent with the population. High intensity was defined by more than 20 hours, but no greater than 30 hours, and low intensity is defined by less than 20 hours. Additionally, low-intensity groups had much less direct interaction with refugee families.

Honors Colloquium Freshmen. Students in the honors colloquium course self-selected into different service groups in which they were expected to complete roughly 30 hours of service that directly or indirectly worked with refugee families: soccer coaches, mentoring, English tutors, UNF events (i.e. Thanksgiving at UNF for the refugee children), clothing drives, film/documentary, fundraising, GIS, research, and PR. These events were then categorized into two categories based on the amount of direct-contact with the refugees; high-intensity (soccer coaches, mentors, and English tutors) and low-intensity (UNF events and clothing drive, film/documentary, fundraising, GIS, research, and PR).

Interdisciplinary Late-Teens. Participants were recruited by faculty members whose courses included a CBL experience. Students, totaling 291 late teens, answered a survey administered before and after the CBL experience and reported on their experience intensity and sex. Instructors had the option of administering the surveys to their students via an online survey

software, Qualtrics, or to take the paper versions of the survey in the classroom. The paper copies were retrieved after completed, and the responses entered into Qualtrics by a research assistant. Instructors could choose to offer the surveys as an extra credit opportunity for their students; participants were not otherwise monetarily compensated for their time.

Materials/Measures

For both the Honor's Colloquium and Interdisciplinary Late- Teens samples, the surveys contained demographic questions as well as questions from psychometrically validated scales. The Honor's Colloquium survey utilized the Basic Empathy Scales (Carré et al., 2013) and the Ethnocutural Empathy Scale (Y. W. Wang et al., 2003), and the Interdisciplinary Late Teen survey utilized the Empathy Assessment Index (Lietz et al., 2011).

Basic Empathy Scale The Basic Empathy Scale (20 items) measured empathy using three components: emotional connection (i.e. "My friend's emotions don't affect me much."), emotional contagion (i.e. "After being with a friend who is sad about something, I usually feel sad."), and cognitive empathy (i.e. "I can understand my friend's happiness when she/he does well at something."). This measure had good test-retest reliability as well as good external validity. In particular, cognitive empathy had moderate internal consistency with a Cronbach's alpha level of 0.71 (Carré et al., 2013). The scale was in Likert scale format with five response options; "Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, Strongly Agree". (Carré et al., 2013).

Ethnocultural Empathy Scale The ethnocultural empathy scale measures culturally specific empathy. The scale maintains high internal consistency and good test-retest reliability (Wang et al., 2003). The scale consisted of four subscales, totaling 31 questions: Empathic feelings and expression ("When other people struggle with racial or

ethnic oppression, I share their frustration"), Empathic Perspective Taking ("I know what it feels like to be the only person of a certain race or ethnicity in a group of people"), Acceptance of Cultural Differences ("I feel annoyed when people do not speak standard English"), Empathic Awareness ("I can see how other racial or ethnic groups are systematically oppressed in our society"; Y. W. Wang et al., 2003).

Empathy Assessment Index. The Empathy Assessment Index was revised and tested in order to provide a measure and definition of empathy across multiple fields of study. The index maintains sufficient levels of reliability and validity; (Lietz et al., 2011a). The Empathy Assessment Index was composed of five scales, made up of fifty items: Affective Response (i.e. "When I am with a happy person, I feel happy myself"), Emotion Regulation (i.e. "Friends view me as moody"), Perspective Taking (i.e. "I can image what it's like to be in someone else's shoes"), Self-Other Awareness (i.e. "I am aware of my thoughts"), and Empathic Attitudes (i.e. "I think society should help out adults in need"; Lietz et al., 2011). Formatted as a six-point Likert scale, responses ranged from one to six; one indicating "never" to six indicating "always";Lietz et al., 2011).

Results

An ANCOVA was performed on the Honors Colloquium sample and the Interdisciplinary Late Teens sample which controlled for students' pretest responses on empathy while examining differences in posttest scores as recommended by Rausch, Maxwell, & Kelley (2003). Two additional covariates were included in the models that were highly correlated with the dependent variable; and a Likert-style assessment of how much students' agreed that CBL was a useful learning tool. To adjust for alpha-wise inflation due to the multiple empathy

subscales that were utilized, a Bonferroni correction was used to correct the alpha wise inflation that increases the chance of Type II errors but decreases the chance of Type I errors. The p-value requirements were altered to a more stringent value of 0.00625 thus decreasing the likelihood for a Type I Error. To obtain this adjusted *p*-value, the original value of 0.05 was divided by the number of analyses on the dependent variable. The main effect for intensity and sex, and the interaction of these two variables was examined for empathy changes after the CBL experience; significant interactions were further probed using simple effects; main effects that were significant concurrently with interactions were not interpreted.

Assumptions

Three assumptions were addressed to ensure the errors are identically, independently, and normally distributed (Shadish, W. R., Cook, T. D., & Campbell, 2002). The assumption of a normal distribution was examined for the subscales of the Basic Empathy Scale, Ethnocultural Empathy Scale, and Empathy Assessment Index. There were outliers three standard deviations away from the mean making the distribution not normal for all subscales. Therefore, 26 outliers were removed from the Interdisciplinary sample and 36 outliers were removed from the Honor's Colloquium sample prior to data analysis. Once the outliers were removed, the skewness and kurtosis of the subscales were within adequate range for the assumption of normality for the dependent variables. Thus, the data did not need to be transformed.

Homogeneity of variance was assessed using Levene's test and Fmax. Levene's test demonstrate inconsistent significance throughout the variables, necessitating Fmax to further probe the homogeneity of variance. Fmax is the ratio of the largest to smallest cell variance. When the ratio is within a 4:1 ratio or less, Fmax is considered a valid substitution for testing

homogeneity of variance in place of Levene's test (Tabachnick, B. G., & Fidell, 2007).The Fmax was within the required range of 4:1 for each variable, so the assumption of homogeneity of variance was achieved.

Main Effects for Sex

There was a main effect for sex in multiple subscales within the Basic Empathy Scale and Ethnocultural Scales which comprised the Honor's Colloquium sample: females participants (M = 4.05, SD = .540) scored significantly higher than males (M = 3.66, SD =.598) in Emotional Connection $F(1,483)=15.47$, $p<.001$, $\eta_p^2=.031$; Emotional Contagion (Females: M = 3.58, SD = .685; Males: M = 3.06, SD = .727; $F(1,472)=4.34$, $p=.038$, $\eta_p^2=.009$); Acceptance of Cultural Differences (Females: M = 4.90, SD = .824; Males M = 4.58, SD = .88); $F(1,485)=13.39$, $p<.001$, $\eta_p^2=.027$; Empathic Feelings (Females: M = 4.58, SD = .885; Males: M = 3.96, SD = .627), $F(1,443)=7.72$, $p=.006$, pn2=.017; and Empathic Awareness (Females: M = 3.96, SD = .627, Males: M = 3.67, SD = .731), $F(1,491)=6.40$, $p=.012$, $\eta_p^2=.013$ (Tables 1, 2, 3, & 4).

There was a main effect for sex within the Empathy Assessment Index which consisted of the Interdisciplinary Late-teen sample; female participants scored significantly higher than males in Empathic Attitudes (Females: M = 4.28, SD = .783; Males: M = 3.91, SD = .826); $F(1,202)=7.721$, $p=.006$, $\eta_p^2=.038$; and males scored significantly higher in Emotion Regulation (Females: M = 4.11, SD = .804; Males: M = 4.39, SD = .773); $F(1,204)=5.96$, $p=.016$, $\eta_p^2=.029$. Males and females both decreased in empathic scores for Acceptance of Cultural Differences, Empathic Feelings, and Empathic Awareness, but males decreased more than females. Males also declined in Emotional Connection, but females increased. For Emotional Contagion, both males and females increased, with males increasing more than females.

Main Effects for Intensity

There was a main effect for intensity in the Ethnocultural Scale in the Honors Colloquium sample (Table 1). For the Acceptance of Cultural Differences subscale, participants in the high intensity service group (M = 3.94, SD = .694) had greater Acceptance of Cultural Differences than the low intensity group (M = 4.01, SD = 0.647), $F(1,485)=5.23$, $p=.023$, $\eta_p^2=.011$). While both high and low intensity groups declined across the semester, those in the high intensity group showed a greater decrease in Acceptance of Cultural Differences.

Interactions

There was a significant interaction in the Basic Empathy Scale in the Honors Colloquium sample, respectively. Table 1 provides pre, post, and change scores for the Cognitive Empathy subscale that reflects a significant interaction, the following interpretation of the interaction should be examined in light of the change scores.

Cognitive empathy (Honors Colloquium sample). In the Honors Colloquium sample, among those in the low intensity group, there was a significant difference between females (M = 4.06, SD = .412) and males (M = 3.92, SD = .357) with females being significantly higher in Cognitive Empathy, $F(1,465)=5.15$, $p=.024$, $\eta_p^2=.011$. Further, females (M = 4.10, SD = .403) were also significantly higher than males (M = 3.73, SD = .480) for the high intensity group, $F(1, 465)=26.92$, $p<.001$, $\eta_p^2=0.055$. Among males, there was a significant difference between those in a high intensity group (M = 3.73, SD = .481) and low intensity group (M = 3.92, SD = .357), $F(1,465)=8.16$, $p=.004$, $\eta_p^2=.017$ where males in the low-intensity group demonstrated higher cognitive empathy post-scores. However, there was not a significant difference for females in the

high intensity group ($M = 4.10$, $SD = .403$) compared to the low intensity group ($M = 4.07$, $SD = .412$).

Overall, females were significantly higher than males in Cognitive Empathy. According to the change scores, females scored significantly higher than males in Cognitive Empathy in the high intensity group. However, males had greater increases in Cognitive Empathy in the low intensity group. There was not a significant difference between high intensity and low intensity for females.

Discussion

As hypothesized, females consistently scored higher in measures of empathy which is consistent with the literature on sex-differences in empathy (Hoffman, 1977; Rueckert & Naybar, 2008; Schulte-RütherMartin et al., 2008). Female's gains in cognitive processes that underlie empathy develop consistently throughout adolescence compared to males who are comparatively delayed, but eventually catch up in development of these cognitive processes closer to adulthood (Van der Graaff et al., 2014). There was a consistent main effect for sex in multiple subscales across the Honors Colloquium and Interdisciplinary Late Teen sample indicating that females were higher in initial pretest scores and remained higher on post-scores on empathy as compared to males. The change evidenced across the semester was not consistent by sex, however; males and females both decreased in empathic scores for Acceptance of Cultural Differences, Empathic Feelings, and Empathic Awareness, but males decreased more than females. For Emotional Connection, females gained in empathy while males decreased across the semester and for Emotional Contagion, both females and males gained. For Empathic Attitudes within the Late Teen sample, females stayed the same while males increased in empathic attitudes after a

community-based learning experience. However, for Empathic Regulation in the Late Teen sample, females increased in Emotion Regulation while males decreased after a CBL experience.

Therefore, it is important to examine the subscales individually as the influence of sex on empathic change seems to be specific to empathy types. There was also one main effect for intensity in the Honors Colloquium sample, where students in high intensity groups scored lower in empathy than those in low intensity groups, though both groups decreased in Acceptance of Cultural Differences across the semester with the high-intensity group decreasing more than twice as much on average as those in the low-intensity group. There were no main effects for the Late Teen sample. There was an interaction in the Honors Colloquium sample for Cognitive Empathy.

Differences and similarities across samples should be considered in light of developmental considerations, student self-selection into experiences, and the reflective component of the course assignments. In addition to a developmental explanation, it is important to consider differences in self-selection into experiences between the samples and how experiences were designed and reflected upon. For example, the Honors Colloquium allowed for self-selection into intensity, and more females selected into the higher intensity experience (69%). Furthermore, the Honor's Colloquium was uniform in providing students opportunity for reflection, though the large class size limited the depth of this reflection. Without sufficient reflection and effective practices within the course, CBL courses may reinforce stereotypical attitudes and negative feelings toward the assignment (Mccluskey-Fawcett & Green, 2016; C. O'Grady, O/Connor, & Erickson, 2012; Storey, Burns, & Certo, 1999). Critical reflection and frequent feedback on reflections are key components of effective CBL courses (Bringle & Hatcher, 1999). This feedback allows instructors to catch, address, and apporopriately guide

processing of student CBL experiences. This can explain why there was a decrease in Acceptance of Cultural Differences after the CBL service.

Emotional Connection & Affective Response

Consistent with our findings, the literature supports that men report lower levels of empathy and may require more intense experiences to induce higher levels of Affective Response (Mado Proverbio, Adorni, Zani, & Trestianu, 2009). However, lower reports of empathy may be a result of reacting differently to emotional experiences. During negative experiences, men may respond to negative emotions by distancing themselves from the situation whereas females respond to negative emotions with more positive affect (Ochsner, Mauss, Gross, McRae, & Gabrieli, 2018). These differences may be explained in that males tend to perceive poverty dispositionally while females understand poverty as being situational (Furnham & Bochner, 1986). Since participants in the Honors Colloquium sample were dealing primarily with individuals in poverty, this gendered perspective differences may help explain these results in Emotional Connection, Affective Response, and Empathic Feelings. With emphasis on reflection in CBL courses, instructors can catch stereotypical thinking and redirect student understanding to prevent intense experiences from reinforcing stereotypical ideas.

Perspective Taking

There were no significant main effects or interactions for Perspective Taking. The lack of significance for Perspective Taking is supported by developmental literature on adolescence and emerging adults. While females begin developing perspective taking before males in early adolescence, during college the gender gap narrows and men and women show equal levels of perspective taking (Van der Graaff et al., 2014).

Conclusion

These findings hold implication for instructors aiming to provide effective CBL experience for their students. Faculty may consider how students may be differentially receptive to CBL experiences on multiple demographic and personality variables, and while this study only examined sex and intensity of experience, it provides a good representation of the diversity of outcomes that can be evidenced. Where lower intensity experiences may be more effective for some students, other students may require greater intensity to have meaningful change in empathy. Instructors may select CBL experiences that are most appropriate for the developmental level of their students – for example, since some freshmen students may be less developmentally prepared to process high-intensity experiences, instructors can provide less intense CBL experiences to produce a more effective change. Additionally, instructors may better assist such students through targeted reflection and feedback (Lay & McGuire, 2010). Because students vary in their type of empathy development in response to CBL, it is important to measure multiple subscales of empathy to interpret the effectiveness of CBL.

Limitations

It is important to note that since these analyses are correlational, causality cannot be assessed. The study included students within Generation Z, which has unique maturational considerations. Future studies may explore a comparison between freshman students to other freshmen without CBL experiences to see the effect of CBL on empathy development. Additionally, this study used gender and sex interchangeably. Because the field of psychology has shifted toward greater distinction and exploration of differences in sex and gender, future studies should also create a distinction while measuring sex and gender for more

developmentally accurate findings (Fischer & Arnold, 1994; Hyde et al., 2018). Further, while a categorical variable was used when distinguishing between high and low intensity groups for the purposes of this study, future studies may consider utilizing continuous variables.

Table 1. *Honors Colloquium's Significant Main Effects for Sex and Intensity*

Variable	Females			Male		
	Pre	Post	**Δ**	Pre	Post	**Δ**
Emotional Connection	4.03	4.06	.0283	3.72	3.68	-.0338
Emotional Contagion	3.54	3.57	.0318	2.99	3.04	.0585
Cognitive Empathy	4.06	4.07	-0.002	3.93	3.84	0.087
Acceptance of Cultural Differences	4.16	4.07	-.0915	4.01	3.79	-.2136
Empathic feelings	3.80	3.73	-.0833	3.44	3.34	-.1465
Empathic Awareness	4.02	3.96	-.0638	3.78	3.68	-.0945

Variable	High Intensity			Low Intensity		
	Pre	Post	**Δ**	Pre	Post	**Δ**
Acceptance of Cultural Differences	4.14	3.94	-.1967	4.09	4.00	-.0868
Cognitive Empathy	4.04	3.96	0.075	4.02	4.00	0.0175

Table 2. *Interdisciplinary Late Teens Significant Main Effects for Sex*

Variable	Females			Males		
	Pre	Post	Δ	Pre	Post	Δ
Empathic Attitudes	4.24	4.28	-.038	4.00	3.86	0.1366
Emotion Regulation	4.05	4.03	.019	4.28	4.41	-.013

Table 3. *Late Teen's ANCOVA results examining main effects and interactions of sex and CBL intensity on basic empathy.*

	F	df	P (sig)	Partial η^2	R^2	Levene's	Fmax M, f	Cronbach's Alpha
Self-Other Awareness	80.012	(1, 200)	.000	.291	.292	.189	(.912, .883)	.747
Sex	.000	(1, 200)	.985	.000	-			
intensity	.671	(1, 200)	.414	.003				
Interaction	.165	(1, 200)	.165	.001	-			
Affective response	116.892	(1, 200)	.000	.375	.442	.048	(.961, .917)	.744
Sex	12.801	(1,200)	.000	.062	-	.054		
intensity	.249	(1,200)	.618	.001	-			
Interaction	5.072	(1,200)	.025	.025	-			
Perspective Taking	128.51	(1, 202)	--	.395	.401	.380	(.910, .882)	.778
Sex	7.721	(1, 202)	.006	.038	-			
intensity	.030	(1, 202)	.863	.000	-			
Interaction	1.666	(1, 202)	.198	.008	-			
Empathic Attitudes	162.315	(1, 202)	--	.452	.507	.880	(.901, .885)	.302
Sex	7.721	(1, 202)	.006	.038				
intensity	.030	(1, 202)	.863	.000	-			
Interaction	1.666	(1, 202)	.198	.008	-			
Emotional Regulation	168.70	(1, 204)	--	.459	.470	.049	(.897, .879)	.516
Sex	5.96	(1, 204)	.016	.029	-			
intensity	3.39	(1,204)	.227	.007	-			
Interaction	3.39	(1,204)	.067	.017	-			

Table 4. *Honor's Colloquium's ANCOVA results examining main effects and interactions of sex and CBL intensity on basic empathy.*

	F	df	p	Partial η^2	Adjusted R^2	Levene's	Fmax male	Post Cronbach's Alpha
Emotional connection	248.849	(1, 483)		.342	.405	.050	1.077, 0.896	.763
Sex	15.470	(1, 483)	.000	.031				
intensity	1.737	(1, 483)	.188	.004				
Interaction	.213	(1, 483)	.305	.002				
Cognitive Empathy	154.490	(1, 474)		.248	.300	.000	.446, .496	.666
Sex	30.255	(1, 474)	.000	.061				
intensity	4.261	(1, 474)	.040	.009				
Interaction	8.700	(1, 474)	.003	.018				
Emotional Contagion	510.465	(1, 471)		.523	.573	.217	1.638, 1.566	.861
Sex	4.340	(1, 471)	.038	.009	---			
intensity	1.660	(1, 471)	.198	.004	---			
Interaction	.071	(1, 471)	.791	.000	---			

Table 5. *Honor's Colloquium ANCOVA results examining ethnocultural empathy main effects, interactions of sex and CBL intensity.*

	F	df	p	Partial η^2	R^2	Levene's Test	Fmax M/f	Post Cronbach's Alpha
Acceptance of cultural differences	329.548	(1, 485)		.407	.431	.319	1.206, 1.298	.775
Sex	13.386	(1, 485)	.000	.027				
intensity	5.234	(1, 485)	.023	.011				
Interaction	.759	(1, 485)	.384	.002				
Empathic feelings	375.042	(1,457)		.453	.496	.000	1.138, 1.135	.819
Sex	7.724	(1, 443)	.006	.017				
intensity	.225	(1, 443)	.636	.000				
Interaction	.426	(1, 443)	.514	.001				
Empathic awareness	281.084	(1, 487)		.368	.393	.037	1.571, 1.282	.738
Sex	6.405	(1, 491)	.012	.013				
intensity	1.230	(1, 491)	.268	.003				
Interaction	.148	(1, 491)	.701	.000				
Empathic Perspective Taking	396.905	(1, 473)		.459	.456	0.60	1.500, 1.476	.806
Sex	.033	(1, 474)	.857	.000				
intensity	.041	(1, 474)	.840	.000				
Interaction	.164	(1, 474)	.686	.000				

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